

KLISIECKI, A.; GARBULINSKI, T.; STRZELCZYK, P.

Experimental peptic ulcer in hypophysectomized rats. Acta physiol.  
polon. 8 no.3:383-385 1957.

1. Z Zakładu Fizjologii A. M. we Wrocławiu Kierownik: prof. dr A. Klisiecki.  
(PEPTIC ULCER, experimental,  
eff. of hypophysectomy (Pol))  
(HYPOPHYSECTOMY, effects,  
on exper. peptic ulcer (Pol))

KLISIECKI, A.; WIKTOR, Z.; PYTASZ, M.; DEC, L.

Effect of arfonad on blood histamine level in dye shock. Acta  
physiol.polon. 11 no.5/6:772 '60.

(TRIMETHAPHAN pharmacol)  
(HISTAMINE blood)  
(SHOCK exper)

KLISIECKI, A.; WIKTOR, Z.; PYTASZ, M.; DEC, L.

Effect of rich phosphate diets on urinary urea, ammonia and pH in normal conditions and in renal disorders. Acta physiol. polon. 11 no.5/6:774-776 '60.

(PHOSPHATES nutrition & diets)

(URINE urine)

(AMMONIA urine)

(URINE chem)

KLISIECKI, Andrzej; WIKTOR, Zdzislaw; PYTASZ, Marian; DEC, Lechoslaw

Alkalisation, ammonia and urea in urine in kidney diseases. Polski tygod. lek. 16 no.52:2001-2004 25 D '61.

1. Z Zakladu Fizjologii AM we Wroclawiu; kierownik: prof. dr A.Klisiecki i z Kliniki Nefrologicznej AM we Wroclawiu; kierownik: prof. dr Z.Wiktor.

(KIDNEY DISEASES urine) (ACID BASE EQUILIBRIUM  
(AMMONIA urine)

KLISIECKI, A.; GARBULINSKI, T.; GOSK, A.

Physiological signs of Cyon-Ludwig reflex. Acta physiol pol 12  
no.1:11-23 '61.

1. Z Zakladu Fizjologii A.M. we Wroclawiu Kierownik: prof. dr  
A. Klisiecki.

(VASMOTOR SYSTEM physiol) (REFLEX)

KLISIECKI, Andrzej

The heart muscle or the battering ram? Polski tygod. lek. 17 no.3:  
110-116 15 Ja '62.

1. Z Zakladu Fizjologii AM we Wroclawiu: kierownik: prof. dr  
Andrzej Klisiecki.

(HEART shv./ol)

BROSS, Wiktor; KLISIECKI, Andrzej; NOWACKI, Pawel; KOCZOROWSKI, Stefan;  
TOPINSKI, Stanislaw; ARONSKI, Antoni

Experimental measurements of intracardiac temperature during flow of  
various defibrillating currents. Acta medica polona 3 no.3:231-236  
'62.

1. II Surgical Clinic, Medical Academy, Wroclaw Director: Prof. Dr.  
W. Bross Department of Physiology, Medical Academy, Wroclaw Director:  
Prof. Dr. A. Klisiecki The Electrotechnical Institute of the Polish  
Academy of Sciences, Warsaw Director: Prof. Dr. P. Nowacki.  
(VENTRIBULAR FIBRILLATION)

KLISIECKI, Andrzej; PYTASZ, Marian; ZIOBKOWSKA, Bozena; CHELSTOWSKA, Grazyna;  
BOCHEREK, Wieslaw

Effect of diets on the reactivity of the blood and urine and on  
their urea and electrolyte content. Pol. tyg. lek. 19 no.17:623-  
627 20 Ap '64.

1. Z Zakladu Fizjologii Akademii Medycznej we Wroclawiu (kierownik:  
prof. dr. A. Klisiecki).



KLISIECKI, Andrzej

Blood circulation under normal conditions and in cardiac shock.  
Arch. immun. ther. exp. 13 no.4:461-497 '65.

1. Department of Physiology, School of Medicine, Wroclaw.

18(5)

AUTHOR:

Juszczyk, L. and Klisiewicz, Z.

POL/43-2-3/27

TITLE:

The Heating of Ingot Heads in order to increase the Output

PERIODICAL:

Wiadomosci hutnicze, 1959, Nr 2, pp 45-49 (Poland)

ABSTRACT:

The main subject of the discussion at the scientific-technical conference of heating ingot heads in order to increase the output. With the help of two drawings the dependence of the specific weight of steel on temperature is described. This is followed by a description of the occurrence of flaws in castings. The loss resulting therefrom amounts to 18-25%, sometimes 35% of the weight of the used material. Diagram Nr 2 schematically shows the formation of flaws. The main method for preventing flaws are: 1) Pressing of the used material during setting; 2) Keeping of the available heat and adding heat in the riser. New methods on heating ingot heads by intensive heat sources (heating by gas, electric arc, exothermic mixtures, etc.) were also prepared. The above methods are then described.


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Card 1/2

POL/43-2-3/27

The Heating of Ingot Heads in Order to Increase the Output

The method of heating by electric arc is described in detail with the help of diagrams. The same is done with examples of the exothermic mixtures. There are 3 graphs 3 diagrams and 2 tables.



Card 2/2

18(3)

P/043/60/000/03/004/028  
D010/D027

AUTHOR: Klisiewicz, Zygmunt. Master of Engineering

TITLE: Vacuum Degassing of Steel 18

PERIODICAL: Wiadomości Hutnicze 1960, Nr 3, p 76 - 83

ABSTRACT: In the introduction the author explains the detrimental influence of gases like carbon monoxide, hydrogen, nitrogen, and oxygen dissolved in steel on its properties and points out that removal of same is one of the most important metallurgical operations. Further, he discusses the theoretical basis of vacuum degassing and its advantages. There are three ways of molten steel degassing: 1 ) in vacuum chambers, 2) by means of movable vacuum tanks and 3) by a circulation method. All three methods are comprehensibly explained by means of clear drawings. The article ends with a description of conventional vacuum installations, the centrifugal oil sealed pump, Roots-blower, and steam ejector. There are

Card 1/2

P/043/60/000/03/004/028  
D010/D027

Vacuum Degassing of Steel

2 tables, 6 figures, 11 graphs and 7 references of  
which 1 is English and 6 German.



Card 2/2

JUŚCZYK, Leopold, mgr ins.; KLISIEWICZ, Zygmunt, mgr ins.

Heating steel ingot heads in order to increase the yield.  
Wiad hut 15 no.2:45-49 P '59.

KLISIEWICZ, Zygmunt, mgr ins.

Vacuum degassing of steel. Wlad hut 16 no.3:76-83 Nr 160.

KLISIC, P.; ALECKOVIC, B.; POLAK, I.

Treatment of femoral fractures by means of extension dressing with  
mastisol, Srpski arh. celok. lek. 88 no.7/8:771-775 J1-Ag '60.

1. Ortopedske-traumatsko odeljenje Opste bolnice u Tuzli. Macelnik:  
dr Predrag Klisic.

(FEMUR fract & disloc)



KLISINSKI, Sylveriusz, mgr., inz., (Katowice)

Equipment informing on train numbers. Przegł kolej elektrotechn 13  
no.7:195-197,200-201 '61.

KLISINSKI, S., mgr ins.

Human sweat from manipulating hands as a cause of corrosion.  
Przegł kolej elektrotech 14 no.10:318-319 0 '62.

PESIC, Dimitrije; KLISKA, Mara

A contribution to the knowledge of the ultraviolet spectrum  
of magnesium oxide. Glas Hem dr 28 no.7:347-351 '63.

1. Boris Kidric Institute of Nuclear Sciences, Belgrade-Vinca.  
Submitted February 24, 1964.

KLISOV, Vladimir Georgiyevich; MYAGKOV, M.M., red.; IGNAT'YEV, V.A.,  
tekhn. red.

[Trade-union committee works on a volunteer basis]Komitet  
profsoyuza rabotaet na obshchestvennykh nachalakh. Moskva,  
Profizdat, 1962. 53 p. (MIRA 15:9)

1. Predsedatel' Volgogradskogo oblastnogo komiteta profsoyusa  
mashinostroyteley (for Klisov).  
(Volgograd Province--Machinery industry workers)  
(Volgograd Province--Trade unions--Officers)

KLISOWSKY, D.

BULGARIA/Electronics - Electron Microscopy.

H

Abs Jour : Ref Zhur Fizika, No 1, 1960, 1495

Author : Klisowsky, D., Pashov, N.

Inst :                     

Title : Electron Microscopic Observation on Genesis of Cobalt-Aluminum Oxide Catalyst

Orig Pub : Dokl. Bulg. AN, 1959, 12, No 1, 25-27

Abstract : The authors have observed changes in the structure of  $\text{Co}_3\text{O}_4$  under the influence of heat treatment. It is observed that at  $600^\circ\text{C}$  the catalyst has a maximum developed surface, the processes of recrystallization take place at  $700^\circ\text{C}$ , and an increase in temperature up to  $900^\circ\text{C}$  causes sintering and recrystallization of the catalyst.

Card 1/1

Translation from: Referativnyy Zhurnal, Elektrotehnika, 1957, Nr 3, p. 160 (USSR)

AUTHOR: Karandeyev, K. B., Klistorin, I. F.

TITLE: Temperature Compensation by Means of Heat-Sensitive Resistors (O temperaturnoy kompensatsii pri pomoshchi termozavisimyykh soprotivleniy)

PERIODICAL: Dokl. L'vovsk. politekhn. in-ta, 1955, Vol. 1, Nr 2, pp. 136-141

ABSTRACT: A brief survey of the major properties of semiconductor thermal resistors - thermistors - is given. Design formulae, as well as certain experimental data characterizing the thermal operating conditions of thermistors used as circuit elements are presented.

M.A.K.

Card 1/1

L 00279-66 EMT(1)/EPA(w)-2/T/EMA(m)-2 IJP(a) AT

ACCESSION NR: AP5023854

HU/0016/64/000/010/0295/0302

AUTHOR: Kliss, A.; Koltay, E. 44, 55

TITLE: Model experiments for demonstrating electron paths

SOURCE: Fizikai szemle, no. 10, 1964, 295-302

TOPIC TAGS: electron optics, electron motion, particle trajectory, nuclear model

ABSTRACT: Means for demonstrating the basic principles of electron optics in general, and of electron paths in particular, were described for the benefit of instructors with especial reference to the rubber-membrane model (described by KLEYNEN, P. H. J. A.; Phil. Tech. Rund., Vol 2, 1937, p 338). The techniques involved were discussed and some typical examples were presented. Orig. art. has. 15 figures and 10 formulas. 2, 44, 55

ASSOCIATION: Kliss--Kossuth Lajos Tudományegyetem Kísérleti Fizikai Intézete, Debrecen  
(Institute for Experimental Physics at Kossuth Lajos Scientific University); 44, 55  
Koltay--MTA Atommag Kutató Intézete, Debrecen (Research Institute for Nuclear  
Sciences, MTA) 44, 55

Card 1/2

L 00279-66

ACCESSION NR: AP5023854

SUBMITTED: 00

ENCL: 00

SUB CODE: NP, OP

NR REF SOV: 000

OTHER: 007

JPRS

*JW*  
Card 2/2

MELIK-GAYKAZYAN, I.Ya.; SARATOVKIN, D.D.; KLISS, A.O.

Effect of pectin on the crystallization of ammonium chloride.  
Izv. TPI 95:372-377 '58. (MIRA 14:9)  
(Pectin) (Ammonium chloride crystals--Growth)

L 32211-00 ENP(j) RM

ACC NR: AP6020816

APPROVED FOR RELEASE: 06/19/2000

SOURCE CODE

CIA-RDP86-00513R000723210002-4

AUTHOR: Melik-Gaykazyan, I.Ya.; Saratovkin, D.D.; Kliss, A.O.

ORG: Institute of General and Inorganic Chemistry, BAN

TITLE: Catalytic oxidation of methanol to formaldehyde on MnO<sub>2</sub> sub 2-MnO<sub>2</sub> sub 3 catalysts

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 6, 1965, 549-552

TOPIC TAGS: molybdenum, manganese, methanol, formaldehyde, catalytic oxidation

ABSTRACT: Lately, new technological methods have been

worked out for the production of formaldehyde in which methanol is oxidized

to formaldehyde through a direct highly sensitive oxidation on oxide catalysts

(see Chem. Week, 1964, August, 29, p. 83). The active catalyst used was the

Fe<sub>2</sub>O<sub>3</sub>-MoO<sub>3</sub> system. According to patents (U.S. Patent No. 295857; U.S. Patent

No. 2519751) the MnO<sub>2</sub>-MoO<sub>3</sub> catalyst possesses also a very high activity. The

patents descriptions deal chiefly with the ways and means of preparing the

catalysts while in scientific literature there are no data on the main

characteristics of this type of catalysts. Therefore, a systematic investigation

of the MnO<sub>2</sub>-MoO<sub>3</sub> catalysts for the oxidation of methanol to formaldehyde was

made. The paper contains a description of experimental procedures (which

included testing of the separate MoO<sub>3</sub> and MnO<sub>2</sub> activities) together with the

presentation and discussion of the preliminary results which indicate that

the MnO<sub>2</sub>-MnO<sub>3</sub> activity is indeed close to the activity of industrial Fe<sub>2</sub>O<sub>3</sub>-

-MoO<sub>3</sub> catalyst. This paper was presented by Academician R. Kaishov on 12 December 1964.

The authors thank Dr. P. Jiru for his interest and M. Raubichlova for her valuable

assistance. Orig. art. has: 3 figures. (Orig. art. in Eng. / JPRS)

SUB CODE: 07/ SUBM DATE: 12Dec64/ OTH REF: 004

Cord 1/1



11939  
S/194/62/000/009/017/100  
D201/D308

AUTHOR: Klistorin, I. F.

TITLE: Improving the shape of the ferroresonance voltage stabilizer curve

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 9, 1962, abstract 9-2-33 g (In collection: Avtomat. kontrol' i elektr. izmereniya. no. 1, Novosibirsk. Sib. itd. AN SSSR, 1960, 69-75)

TEXT: The author considers the possibilities of avoiding defects which limit the range of application in ferroresonant stabilizers (RS), used in automation. These defects are related both to the form of the stabilized (output) voltage and to the frequency dependence of this voltage (of the order of  $1.5 \pm 4\%$  per  $1\%$  in frequency change). It is shown that an improvement in the shape of the stabilized voltage may be obtained by connecting cascaded resonant circuits tuned to odd harmonics to the stabilizer output (e.g. of the type CH-320 (SN-320)) or in parallel to the saturated choke. The

Card 1/2

curve by making it nearly sinusoidal; 2) decrease the frequency dependence of the stabilizer; 3) make the shape of this curve practically independent on the input voltage, load and the load power factor; 4) additional chokes (of small dimensions) increase the ~~APPROVED FOR RELEASE 06/19/2000~~ the ~~CIA-RDP86-00513R000723210002-4~~ than 10 to 15%. 4 figures. 2 tables. 4 references. [Abstracter's note: Complete translation.]

Card 2/2

KLISTORIN, I.F.; DEGTYARIK, N.V.

Measuring element of a precision-type a.c. voltage stabilizer.  
Avtom. kont. i elek. izm. no.2:159-170 '60. (MIRA 15:3)  
(Voltage regulators)

IL'YENKOV, A.I.; KLITORIN, I.F.; SOBOLEV, V.S.; SHALINA, L.V.,  
red.; VIALYKH, A.M., tekhn. red.

[Transistor voltage regulators] Poluprovodnikovye stabi-  
lizatory napriazheniya. Novosibirsk, Izd-vo sibirskogo  
otd-niia AN SSSR, 1962. 51 p. (MIRA 16:7)  
(Voltage regulators)

L 15546-63

BDS

ACCESSION NR: AP3005527

S/0115/63/000/007/0030/0031

52  
51

AUTHOR: Gornikov, N. I.; Klitorin, I. F.; Matushkin, G. G.; Strukov, V. G.

TITLE: Specialized digital voltmeter

SOURCE: Izmeritel'naya tekhnika, no. 7, 1963, 30-31

TOPIC TAGS: voltmeter, digital voltmeter, voltage regulator tube

ABSTRACT: Development is described of a new digital voltmeter for precise measurement of stabilization voltage and temperature coefficient in the manufacture of silicon voltage-regulator tubes. The new instrument, based on the digital voltmeter described by I. F. Klitorin, et al. (Izvestiya VUZ 'ob, Priborostroyeniye, 1962, v. 5, no. 2), is in essence an electromechanical compensator with digitwise balancing. A circuit diagram of the new voltmeter is supplied, and its components specified. Its error is  $\pm 0.02\%$  or less. The voltmeter proved to be reliable in operation under actual factory conditions and permitted considerable saving in labor.

Assn: Inst. of Automation and Electrometry, SO AN SSSR

Card 1/2/

KASPEROVICH, A.N. (Novosibirsk); KLITORIN, I.F. (Novosibirsk); TSAPENKO,  
M.P. (Novosibirsk)

Automatic digital electric meters. Avtometriia no.1:35-44 '65.  
(MIRA 18,7)

AMOSOVA, S.P.; KLITORIN, I.F.; OKHOTSKAYA, V.N.

Analysis of the operation of semiconductor thermistors with  
indirect heating in an a.c. and d.c. current comparison network.  
Trudy Inst. avtor. i elektrometr. SO AN SSSR no.10:62-67 '65.  
(MIRA 18:8)

GORELIKOV, N.I.; KLITORIN, I.F.

Voltage dividers of automatic digital a.c. voltmeters. 1zm.  
tekh. no.8:27-29 Ag '65. (MIRA 18:9)

L 34832-66 ENT(d)/ENP(n)/ENP(k)/ENP(h)/ENP(l) BC  
ACC NR: AP6015208 (N) SOURCE CODE: UR/0410/65/000/001/0035/0044

AUTHOR: Kasparovich, A. N. (Novosibirsk); Klistorin, I. F. (Novosibirsk); 21  
Tsapenko, M. P. (Novosibirsk) 24

ORG: none B

TITLE: Automatic digital measuring instruments, d

SOURCE: Avtometriya; no. 1, 1965, 35-44

TOPIC TAGS: measuring instrument, digital measuring instrument, automatic measuring instrument

ABSTRACT: Based on 1957-64 Soviet and (four) 1962-64 Western publications, this review briefly covers the following points: Methods of comparing measurand and known quantity in digital instruments (general block diagram, digit-by-digit and sweep balancing, variable-structure devices, scale transformations).

Card 1/2

UDC: 681.2.082 + 621.317.08

Card 2/2 ✓



ACC NR: AP6035864

SOURCE: UR/0413/66/000/020/0076/0077

INVENTOR: Gorelikov, N. I.; Klintonin, I. F.; Sobstel', G. M.

ORG: none

TITLE: Digital wattmeter, Class 21, No. 187147. (announced by Institute of Automation and Electrometry, Siberian Branch, AN SSSR (Institut avtomatiki i elektrometrii Siberskogo otdeleniya AN SSSR))

SOURCE: Izobreteniya promyshlennyye obrasty, tovarnyye znaki, no. 20, 1966, 76-77

TOPIC TAGS: wattmeter, power meter, electric measuring instrument

ABSTRACT: An Author Certificate has been issued for a digital wattmeter (see Fig. 1) which contains a shunting element with a voltage drop meter in the current-measuring circuit and a potentiometer with constant input impedance (provided by two variable resistors) in the voltage-measuring circuit. To increase both the accuracy and the frequency range of measurements, the variable resistors of the potentiometer take the

26

Card 1/2

UDC: 621.317.725:681.14

"APPROVED FOR RELEASE: 06/19/2000" CIA-RDP86-00513R000723210002-4

ABSTRACT: The effects of the time lag of the switching elements and of the presence of residual parameters (capacitance and inductance) of a capacitor connected in parallel with the load resistance on the magnitude of the output voltage pulsations of an on-off constant voltage regulator are discussed. The effect of these two factors is important since the latter impair the minimization of the output voltage pulsations by decreasing the hysteresis bandwidth or by increasing the capacitance of a (preferably electrolytic) capacitor. It is shown that the limiting effect of the time lag of the switching elements on the limit values of the output voltage pulsations can be minimized if the threshold frequencies of the transistors employed greatly exceed the frequency of the self-oscillations of the regulator. By appropriate assembly, and using hf transistors and several parallel-connected capacitors of equal

Card 1/2

UDC: 621.3.072.2

L 07212-67

ACC NR: AP6026305

capacitance and very small residual inductances, it is possible to reduce the peak-to-peak amplitudes of the pulsations to values of the order of 10 mV. If the pulsations should not exceed about 0.1%, it is not advisable to design an on-off regulator for output voltages less than 10 V. Orig. art has: 21 formulas and 4 figures.

SUB CODE: 09/ SUBM DATE: 04Sep65/ ORIG REF: 007/ OTH REF: 001

Card 2/2 *PLH*

AUTHORS: Klistorner, A.I., Tyerskoy, M.A. and Blyuz, V.K. SOV/127-58-12-20/26

TITLE: The Attachment of the Supporting Axle of the Excavator SE-3  
(Rekonstruktsiya krepleniya napornoy osi ekskavatora SE-3)

PERIODICAL: Gornyy zhurnal, 1958, Nr 12, pp 62 - 63 (USSR)

ABSTRACT: The author proposes a new method of fixing the supporting axle of the excavator SE-3, constructed by the Ural'skiy zavod tyazhlogo mashino-stroyeniya (the Ural Plant of Heavy Machine Building). By changing the shape of the thrust shaft to which this axle is attached breakage can be prevented. There are 2 sets of diagrams.

ASSOCIATION: Magnitogorskiy metallurgicheskiy Kombinat (Magnitogorsk Metallurgical Combine)

Card 1/1

KLISURANOV, G. St., st. as. inzh.

Influence of the speed of variation of the relative magnetic receptivity on the efficiency of separation in a rotating variable electromagnetic field. Godishnik Min geol inst 9:137-146 '62-'63 [publ. '64].

KLISURSKI, D.: MEKHANDZHIEV, M.

"Possibilities of utilizing the cinders from pyrite ores and flotation-pyrite concentrate in the Stalin Chemical Plant in Dimitrograd"

Teshka Promishlenost. Sofia, Bulgaria. Vol. 8, no. 1, Jan. 1959

Monthly list of East European Accessions (KEAI), LC, Vol. 8, No. 6, Jun 59, Unclass

KLISURSKI, D.; PETROVA, K.; IVANOV, D.

"Preparation and testing of a cobalt-oxide catalyst for oxidization of ammonia up to nitrogen oxide."

TEZHKA PROMISHLEOST, Sofia, Bulgaria, Vol. 8, no. 5, Mar. 1959

Monthly list of East Europe Accessions (EEAI), LC, Vol. 8, No. 6, Sept 59  
Unclas

KLISORSKI, D

Electron-microscopic observations on genesis of cobalt-aluminum oxide catalysts. I. Effects of thermal treatment. D. Klisowski and M. Cichy. *Compt. rend. acad. bulgare sci.* 12, 25-7 (1969) (in English).—It was intended with the aid of an electron microscope to trace certain structural changes of  $\text{Co}_2\text{O}_3$ , the basic component of com. Co-Al catalyst. At 600° the catalyst showed the most developed surface. Recrystallization was observed at 700°. At 800° the catalyst showed sintering and recrystallization. Thirteen electron micrographs illustrate these changes which occur during heating. Samples of  $\text{Co}_2\text{O}_3 \cdot 3\text{H}_2\text{O}$  were prepared by precipitation of pure  $\text{Co}(\text{NO}_3)_2 \cdot 6\text{H}_2\text{O}$  with  $\text{H}_2\text{C}_2\text{O}_4 \cdot 2\text{H}_2\text{O}$ . Sample no. 1 was heated 1 hr. at 160°. Sample no. 2 was heated to 230° when  $\text{Co}_2\text{O}_3$  began to decompose. The rapid interaction of the products of decomposition,  $\text{CoO}$  and  $\beta\text{-Co}$ , with atm. O raised the temp. to 380°, after which the sample cooled to its initial temp., and heating was discontinued. Sample no. 3 was heated for 1 hr. at 600°, sample no. 4 for 1 hr. at 700°, and sample no. 5 for 7 min. at 800°. All samples were heated in powder form in the presence of air. The

powd. catalyst samples were suspended in pure air to prepare the specimens for the electron-microscope observations. The suspension was dropped onto the supporting membrane of Formvar. Sample no. 1 showed sharply defined crystals of  $\text{Co}_2\text{O}_3 \cdot 3\text{H}_2\text{O}$  with small surface roughness. Sample no. 2 revealed incipient thermal dissociation of  $\text{Co}_2\text{O}_3 \cdot 3\text{H}_2\text{O}$  to  $\text{Co}_2\text{O}_3$ . Agglomerates and increased surface roughness were noted, as well as almost complete destruction of smaller crystals. In sample no. 3 the strongly developed surface showed little peaks which in certain cases covered the whole agglomerate surface. A characteristic exfoliation occurred in the crystal. Sample no. 4 which was heated to the working temp. of the catalyst showed individual well-developed monocrytalline growths. Sample no. 5 showed advanced densification of the structure together with large agglomerates. Owing to the advanced recrystallization, well-shaped crystal walls could be observed. When the work temp. was exceeded even for a short time sintering occurred in the catalyst, and the activity of the catalyst dropped by 10 to 12%.

George M. Mott

RECEIVED

11. "The influence of American culture on the formation of Soviet culture and the formation of a stable front in the movement of Soviet culture and from the view of American culture." Journal of the American Academy of Arts and Sciences, Vol. 1, No. 1, 1954, pp. 1-10.
12. "The influence of Soviet culture on the formation of American culture." Journal of the American Academy of Arts and Sciences, Vol. 1, No. 1, 1954, pp. 11-20.
13. "The influence of American culture on the formation of Soviet culture." Journal of the American Academy of Arts and Sciences, Vol. 1, No. 1, 1954, pp. 21-30.
14. "The influence of Soviet culture on the formation of American culture." Journal of the American Academy of Arts and Sciences, Vol. 1, No. 1, 1954, pp. 31-40.
15. "The influence of American culture on the formation of Soviet culture." Journal of the American Academy of Arts and Sciences, Vol. 1, No. 1, 1954, pp. 41-50.
16. "The influence of Soviet culture on the formation of American culture." Journal of the American Academy of Arts and Sciences, Vol. 1, No. 1, 1954, pp. 51-60.
17. "The influence of American culture on the formation of Soviet culture." Journal of the American Academy of Arts and Sciences, Vol. 1, No. 1, 1954, pp. 61-70.
18. "The influence of Soviet culture on the formation of American culture." Journal of the American Academy of Arts and Sciences, Vol. 1, No. 1, 1954, pp. 71-80.
19. "The influence of American culture on the formation of Soviet culture." Journal of the American Academy of Arts and Sciences, Vol. 1, No. 1, 1954, pp. 81-90.
20. "The influence of Soviet culture on the formation of American culture." Journal of the American Academy of Arts and Sciences, Vol. 1, No. 1, 1954, pp. 91-100.



KYNEV, S. [Kunev, S.]; KLISURSKI, D.; VATEVA, E.

Semiconducting properties of some cobalt oxide catalysts, and the catalytic oxidation of ammonia. Doklady BAN 15 no.1:61-64 '62.

1. Predstavleno akad. R. Kaishevym.

KUNEV, St.; KLISURSKI, D.; VATEVA, El.

Semiconducting properties of some cobalt-oxide catalysts,  
and catalytic oxidation of ammonia. Izv fiz atom BAH  
9 no.2:57-72 '62.

KLISURSKI, D.

Reiteration of results in carrying out a differential  
thermal analysis. Khim i industriia 35 no.5:173-174 '63.

KLISURSKI, D.G.

Studies on the genesis of a cobalt-aluminum oxide catalyst  
by differential thermal analysis. Izv Inst khim RAN no.8:  
153-163 '61.

**KLISZCZ, W., Dr., Lekars Przemyslowy Z.P.A. Kedsiersyn**

Problems of the medical service at the chemical plant at  
Kedsiersyn. *Zdrowie* pub., Warszawa no.6:451-455 Nov-Dec 54.  
(INDUSTRIAL HYGIENE  
in Poland, med. care in chem. ind.)

KLISZCZ, Wacław

Post-traumatic bleeding ulcer of the stomach. Polski przegl. chir.  
33 no.3:267-270 '61.

1. Z Oddziału Chirurgicznego Szpitala Powiatowego w Koszlu Dyrektor:  
dr Z. Teleszynski.

(PEPTIC ULCER HEMORRHAGE etiol)

BUKOWSKI, Janusz; GRZYBOWSKI, Janusz; KLISZCZ, Maciej; SZUBINSKI,  
Miroslaw; MASZKOWSKI, Zbigniew; ZIAREK, Stanislaw

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dr. St. Szysko) i Szpital Powiatowy w Koslu (Dyrektor: dr.  
Zdzislaw Teleszynski).

KLISZYNSKI, R., ins.

Pile drivers for formation of piles in the ground. Przegł  
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KLEZYNKI, Ryszard, inż.

Pile driving equipment. Przegl mech 23 no.9/10.280  
25 My '64.

1. Head, Laboratory of the Office for Design and Technology  
of Construction Machines and Equipment, Warsaw.

*Klita, S.*  
ZIELINSKA, Z.M.; KLITA, S.

Chromatographic studies of pterin pigments appearing on the skin of  
Lepidoptera larvae. Acta physiol. polon. 8 no.3:584-585 1957.

1. Z Zakladu Biochemii Instytutu Biologii Dow. im. Menckiego w  
Warsawie Kierownik: prof. dr W. Niemierko.

(INSECTS,

Lepidoptera larvae, chromatography of pterin pigments  
on skin (Pol))

(PTERINS, metabolism,

Lepidoptera larvae skin, chromatography (Pol))

**HALIKOWSKI, Boguslaw; KLITA, Stefan**

Level of Cl<sup>-</sup> ions in the cerebrospinal fluid and changes of extra-cellular osmolarity in tuberculosis cerebral meningitis in children. *Pediat.polska* 34 no.10: 1273-1288 O '59.

1. Z Oddziału Dziecięcego Instytutu Gruźlicy w Sanatorium im. J. Mar-  
chlewskiego w Otwocku. Kierownik: prof.dr. F. Order.

(CHLORIDES cerebrospinal fluid)  
(TUBERCULOSIS MENINGEAL metab.)  
(OSMOSIS)

SZAFRANSKI, P.; KLITA, S.

Soluble ribonucleic acid and polymerization of amino acids.  
Acta Biochim. Pol. 11 no.1:61-69 '64.

1. Institute of Biochemistry and Biophysics, Polish Academy  
of Sciences, Warszawa.

STAFANOWSKI, Przemyslaw; KLITA, Stefan

Nucleic acids and protein biosynthesis. Postgrad Med J. 11: 40-41;  
1974-1975.

DVORNIKOV, A.G. [Dvornikov, A.G.]; PLITCHENKO, M.I.

Distribution of mercury in the intrusive rocks of the Nagol'nyy  
Range. Dop. AN USSR no.10:1354-1357 '64. (MCPA 17:12)

1. Institut mineral'nykh resursov AN UkrSSR. Predstavleno  
akademikom AN UkrSSR V.G. Bondarenukom [Bondarenuk, V.M.].

KLITCHENKO, M.A.

Igneous rocks from lower Carboniferous coal deposits in the southern  
Donets Basin. Inv. DOI 29:79-91 '57. (MIRA 11:5)  
(Donets Basin—Rocks, Igneous)

AMR

June 5!

1955. Klamath, J. Theory of stability (in Russian). Moscow, Fizmatgiz, 1955, 214 pp.

The book represents the author's course of lectures given at the engineering school of Baikal State University. The subject is divided into six chapters. After establishing the fundamental equations of the theory of stability in the first chapter, the author discusses in the second chapter the application of these equations to the solution of Saint Venant's problems on various questions in the solution of prismatic bars.

In the third chapter, two-dimensional problems are taken up and the solutions in the form of polynomials and in Fourier series are given and applied to analysis of stress distribution in beams. The two-dimensional problem in polar coordinates is also discussed.

Some problems are given for bending of curved bars and for stress distribution around a circular hole.

The fourth chapter contains discussion of bending and torsion problems and also the derivation of Castigliano and reciprocal theorems.

In the fifth chapter, bending of bars and beams is discussed. The use of Lagrange's series in analysis of bending of beams is shown and is applied to such problems as bending of beams on elastic foundation and in combined bending and axial tension or compression of beams. The systems of beams consisting of several main girders supported by a number of cross beams are discussed with more detail and the application of the results in ship construction is indicated.

In the last chapter, the author derives the equations for bending of plates and gives applications for various cases of bending of rectangular plates.

In conclusion, the bending of rectangular plates and their deformation by stresses are discussed.

S. Timoshenko, USA

Castigliano  
Theory  
9



KLITCHIEFF, J

M

Yugoslavia (430)

Transactions already published in specialized Serbian language publications of the Academy). Vol. 2 no. 1, 1951.

East European Accessions List. Library of Congress, Vol. 1, no. 13, November 1952.

UNCLASSIFIED.

"Card 2 of 2"

KLITCHIEFF, J. M.

7/8

Klitchieff, J. M. Über die Biegung rechteckiger Platten.  
Bull. Acad. Serbe Sci. Cl. Sci. Tech. (N.S.) 2. 69-76  
(1951).

The author considers the small deflections of a rectangular plate clamped on all edges. The method is roughly equivalent to one appearing elsewhere (S. Timoshenko, Theory of Plates and Shells, McGraw-Hill, New York, 1940, pp. 222-232). In the case of simply supported edges, the Navier solution for a general transverse load is used to get the solution for a general concentrated load. This solution then leads to the one for a general concentrated edge moment. Integration then yields the solution for the simply supported rectangular plate under general distributed edge moments, the solution being expressed in terms of the Fourier coefficients of these edge moments. Introduction of the conditions for clamped edges then yields an infinite set of equations to be solved for the above-mentioned Fourier coefficients. These equations can be solved by successive approximations.

G. E. Hay (Ann Arbor, Mich.).

Source: Mathematical Reviews,

Vol 11 No. 4

Sum 1951

Kloster, J. M. Biegung eines Balkens veränderlichen  
Querschnitts. Bull. Acad. Serbe Sci. Cl. Sci. Tech. (N.S.)  
 1, 77-82 (1951).

The Euler-Bernoulli formula of technical beam theory has been derived for end loading of uniform beams. However, it is customarily used also when the load is distributed along the beam and when the cross-section varies. The author asserts that for the pure bending of a rather special beam with varying cross-section, the Euler-Bernoulli formula agrees with the exact solution to within three per cent. This particular beam considered has a rectangular cross section of uniform width and linearly varying length. This width is much smaller than the length of the cross section, so the problem can be considered as one of generalized plane stress. This generalized plane stress problem has been solved by C. E. Inglis [Trans. Inst. Nav. Arch. 64, 253-261 (1922)]. Inglis's solution readily verifies the assertion of the author of the present paper.

G. E. Hay.

Sources: Mathematical Reviews, Vol 13 No. 4

KLITCHIEFF, J. M.

Yugoslavia (430)

summaries of transactions already published in specialized Serbian language publications of the Academy.) Vol. 2, no. 1, 1951.

East European Accessions List. Library of Congress, Vol. 1, no. 13, November 1952.  
UNCLASSIFIED "Card 2 of 2"

KLITCHIEFF, J. M..

Yugoslavia (430)

Summaries of Transactions already published in specialized Serbian language publications of the Academy.) Vol. 2, no. 1, 1951.

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UNCLASSIFIED.

"Card 2 of 2"

KLITCHIEFF, J. H.

Yugoslavia (430)

Published in specialized Serbian language publications of the Academy.)

Vol. 2, no. 1, 1951.

East European Accessions list. Library of Congress, Vol. 1, no. 13, November 1952.

UNCLASSIFIED

"Card 2 of 2"

GUL', V.Ye.; KLITENIK, O.S.

Effect of molecular interaction on light dispersion of rubber solutions. Koll.shur. 16 no.3:171-178 '54. (MLBA 7:7)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii.  
(Rubber) (Light--Scattering)

KWITENIK, B.S.

✓ Effect of moderate illumination on the rate of burning of 144  
paper cigarettes: V. E. Ode and G. B. Kozlov (USSR). Paper  
burning, Moscow, 1964, 100 p., 118274.  
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C. C. Dark

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K. I. LEVY, G. S.

U S S R

1971. Effect of molecular interaction on the  
properties of rubber solutions. V. E. GUR  
and G. S. LEVY. *Am. Chem. Soc. Trans.*, 1971,  
53, 449-460. *U.S.S.R.*, 1964, 10, 179-84;  
*Chem. Abs.*, 1965, 46, 8018. Cf. this journal, 1965,  
abs. 1812. English translations of this article now  
appear. 23465

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Klitenik, GS

4E2-  
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140. Assessment method of classification of  
oil refining on cells (Grosshans, Robert, Chemical  
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RTM day

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butadiene-carbon black dispersions. Rubber Tech-  
nical Bulletin, U. S. KAUTSCH and E. H.  
GIESSEN. Symposium on Carbon Black, From  
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Kautsch., 1967, No. 1, 47.

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AUTHORS:

Ratner, S. B., Klitenik, G. S.

66968

SOV/32-25-11-42/69

TITLE:

Rubber Wear Tests by Means of a Metal Grid

PERIODICAL:

Zavodskaya laboratoriya, 1959, Vol 25, Nr 11, pp 1375-1377 (USSR)

ABSTRACT:

One of the disadvantages of rubber wear tests on the abrasive surfaces of emery (Ref 1) is the contamination of the rubber surface. It can be avoided by using metal grids (Ref 2). The latter may also be applied for the abrasion of lubricated or swelled rubber samples (Ref 3). Test results obtained by means of the machine by Grassel (GOST 426-57) are given. The values obtained with the aid of the metal grid are considerably more sensitive to variations in the composition and the time of vulcanization of the rubber than the ones obtained by emery. (Fig 1, carbon-black filled rubber based on SKN-26-rubber, dibutylphthalate admixture to SKN-40 and SKN-26-rubber). An increase in the carbon-black filling from 0 to 7% by weight resulted in a wear resistance increased approximately by the 100000-fold when metal grid was used, as compared with a 10-fold increase in abrasiveness found in the case of emery. The wear of rubber by the metal grid is described by the equation (Ref 3)

$$M = M_1 \cdot N^\alpha \quad (1), \text{ where } \alpha \geq 1, \text{ and } \alpha \text{ and } M_1 \text{ are constants, which}$$

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Rubber Wear Tests by Means of a Metal Grid

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SOV/32-25-11-42/69

depend on the properties of the rubber and usually vary inversely. In the present case  $\alpha$  varied between 1 and 6 (Fig 2, the dependence of the wear  $M$  on the load and degree of compression for rubber of the types SKN-40, SKN-26, SKN-18, and SKN-0 (SKB)). In comparison to soft types of rubber, stiff types of rubber show slighter wear at a lower degree of compression, and higher wear at a high degree of compression (many rubber parts wear in the course of certain deformations, i.e. elongation). For comparing laboratory tests with the operating conditions it is important to know the dependence of the specific wear of samples, having various (nominal) contact surfaces, on the specific pressure (Fig 3), and to correlate test values obtained with the metal grid, with the wear values of the same rubber sample obtained by means of smooth steel surfaces. When selecting types of rubber wearable by steel surfaces, wear tests with a metal grid, and friction tests with a metal grid must be made. There are 3 figures and 5 references, 3 of which are Soviet. 4

ASSOCIATION:  
Card 2/2

Sverdlovskiy zavod rezinovykh tekhnicheskikh izdeliy  
(Sverdlovsk Plant for Commercial Rubbers)

S/081/61/000/024/084/086  
B101/B110

AUTHORS: Ratner, S. B., Klitenik, G. S., Mel'nikova, M. V.

TITLE: Frictional wear (abrasion) of rubber

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24, 1961, 585, abstract 24P432 (Tr. 3-y Vses. konferentsii po treniyu i iznosu v mashinakh, v. 2. M., AN SSSR, 1960, 93 - 101)

TEXT: Abrasion (A) of rubber with sandpaper on the Grasselli machine shows a considerable spread of values which is due to the bending of the specimen. This spread can be eliminated by reducing the specimen height to 3.0 - 3.5 mm. If A is caused by a metal network, it is not influenced by the oiling of the friction contact. This makes it possible to investigate swelled rubbers. For A with sandpaper and with network  $I = \text{const } P^c$  holds for the intensity I of wear.  $P_p$  is the specific normal load, c a coefficient. For sandpaper  $c \approx 1$  which corresponds to the Shalamakh equation; for network  $c \geq 1$ . Hence the influence of rubber hardness differs with different load. A satisfactory correlation exists between A with network and with steel disk. The correlation between A

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Frictional wear (abrasion) of rubber

S/081/61/000/024/084/086  
B101/B110

with sandpaper and A with the disk is poorer. The absolute wear  
correlates with the friction coefficient of rubber. [Abstracter's note:  
Complete translation.]



Card 2/2

S/138/60/000/003/003/007  
A051/A029

AUTHORS: Klitenik, G.B. Ratner, S.B. ✓

TITLE: A Study of the Wear Resistance in Rubber by Means of a Metal Grate

PERIODICAL: Kauchuk i Rezina, 1960, No. 3, pp. 19 - 25

TEXT: In order to increase the wear resistance of rubber, the authors point out the necessity of determining the mechanism of the wear and suggest that a more accurate investigation of rubber deterioration can be accomplished by using a metal grate. It is assumed that the wear in rubber takes place only due to forces of friction. Schallamach (Ref. 1) derived a formula expressing the connection between the mass reduction  $m$ , the distance between the combs  $r$  which form on the surface of the rubber during friction and the specific pressure  $p$  (Formulae 1 - 3). This theory can be confirmed by using the metal grate. The results of the investigation, using this grate, are submitted. It was found that with an increase in the load the wear increases according to the formula ✓

$$m = m_1 p^\alpha = \frac{p^\alpha}{K_1};$$

where  $\alpha$  (at a minimum value of 1) increases with an increase in the forces of

Card 1/3




S/138/60/000/003/003/007  
A051/A029

A Study of the Wear Resistance in Rubber by Means of a Metal Grate

References: 8 Soviet and 3 English.

ASSOCIATION: Sverdlovskiy zavod rezino-tehnicheskikh izdeliy, nauchno-issledovatel'skiy institut plasticheskikh mass (Sverdlovsk Plant of Commercial Rubber Products, Scientific Research Institute for Plastics)



Card 3/3

8/138/60/000/007/009/010  
A051/A029

AUTHORS: Klitenik, O.S.; Krushchanskaya, D.Z.; (Petukhova, O.I. took part in the experimental procedure)

TITLE: The Shortening of Control Periods in the Thermal Aging of Rubbers <sup>15</sup>

PERIODICAL: Kauchuk i Rezina, 1960, No. 7, pp. 45 - 48

TEXT: The aging control periods at a temperature of 70°C of most commercial rubbers last 6 to 10 days at the present time. Since aging is due to the activation of rubber by temperature, an attempt was made to use a temperature of 80 - 90°C in order to reduce the control periods. An increase in the temperature from 70 to 90°C proved also essential because the aging of the synthetic rubber at 70°C was not effective enough and not characteristic for these rubbers. The effect of temperature on the aging rate is usually evaluated by the magnitude of the temperature coefficient, which shows how many times the aging rate increases with an increase in the temperature by 10°C. It is emphasized that the application of higher temperatures for the testing is only possible, when the nature of the kinetic relationships of the various indices does not change, since with an increase in the temperature the rate of the structuralizing and destruction pro-

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S/138/60/000/007/009/010  
A051/A029

# The Shortening of Control Periods in the Thermal Aging of Rubbers

cesses change in various degrees. Thus caution must be exercised in selecting the aging control period. The rubber quality index must also be selected with great care. The rubbers under investigation were 10 mass-produced rubbers based on various raw material: CKH (SKN), polychloroprene, CKB (SKB), CKNC-30 (SKMS-30) and natural rubber. The experimental procedure is outlined, whereby the aging process was conducted in air thermostats at 70, 80 and 90°C. Each type of the rubber was aged in a different thermostat. The aging was evaluated by the change: 1) of the modulus at 100% expansion on the dynamometer (FOCT-270-53 - OOST 270-53), 2) stability indices (FOCT 270-53 OOST 270-53), 3) conditional-equilibrium modulus (according to the NIIRP method) (Ref. 5), 4) the compression modulus determined by the Williams plastomer according to a specially developed method. The kinetic relationships of the mass-produced rubber aging at various temperatures are divided into different characteristic types: 1) linear, in coordinates index versus aging duration (Figs. 1, 2); 2) linear, in coordinates index versus square root of the aging duration (Figs. 3, 4); 3) having an experimental nature (Fig. 5). The experimental data reveal: 1) The scattering of the aging data at 90°C is not great and does not surpass that of the scattering noted at 70°C. 2) The values of

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S/138/60/000/007/009/010  
A051/A029

**The Shortening of Control Periods in the Thermal Aging of Rubbers**

the aging coefficients at 90°C correspond to the present standards as well as to previously valid TU standards. 3) The maximum permissible deviation also in most cases corresponds to the existing standards. The temperature coefficient of the investigated commercial rubbers is close to 2, which corresponds to the theoretical and literature values. It was shown that the transfer of the control aging from 70 to 90°C decreases the time for rubber analysis. The coefficient values of aging correspond to the TU and GOST standards. The following periods of aging are recommended when transferring from 70 to 90°C: 48 h at 90°C instead of 240 h at 70°C; 30 - 36 h at 90°C instead of 144 h at 70°C; 20 - 24 h at 90°C instead of 96 h at 70°C. For the K type rubber based on NR the aging period at 90°C should be less than that assumed from the usual value of the temperature coefficient, namely, 16 - 20 h at 90°C instead of 30 - 36 h (equivalent to 144 h at 70°C). This is determined by the fact that the changes of the stability properties of the indicated rubbers at elevated temperatures of aging take place with a greater speed and according to extreme kinetic curves. G.J. Petukhova took part in the experimental work. There are 2 tables, 5 graphs, 5 references: 1 Soviet and 4 English.

ASSOCIATION: Sverdlovskiy zavod resinovykh tekhnicheskikh izdeliy (Sverdlovsk Plant of Commercial Rubber Products)

Card 3/3

KLITENIK, O.S., KRUSHCHANSKAYA, D.Z.

Shortening the time of test periods in the high-temperature  
aging of rubbers. Kauch.i rez. 19 no.7:45-48 JI '60.  
(MIRA 13:7)

1. Leningradskiy shinnyy zavod.  
(Rubber--Testing)

Klitenik, G. S., Mel'nikova, M. V., and Ratner, S. S.

"On Frictional Wear (in the Abrasion) of Rubber." p 93

Sukhoie i granichnoye treniye. Friksionnyye materialy (Dry and Boundary Friction. Friction Materials) Moscow, Izd-vo AN SSSR, 1960. 302 p. Errata slip inserted. 5,000 copies printed. (Series: Its: Trudy, v. 2)

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya.  
Resp. Ed.: I. V. Kragel'skiy, Doctor of Technical Sciences, Professor; Ed. of Publishing House: K. I. Grigorash; Tech, Ed.: S. G. Tikhomirova.

The collection published by the Institut mashinovedeniya, AN SSSR (Institute of Science of Machines, Academy of Sciences USSR) contains papers presented at the III Vsesoyuznaya konferentsiya po treniyu i iznosu v mashinakh (Third All-Union Conference on Friction and Wear in Machines, April 9-15, 1958.

S/081/62/000/010/C78/085  
B166/3144

AUTHOR: Klitenik, G. S.

TITLE: New materials for the production of rubberized technical articles

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 10, 1962, 656, abstract 10P398 (Vestn. tekhn. i ekon. inform. N. 1, Min-t tekhn.-ekon. issued. Gos. Kom-ta Sov. Min. SSSR po khimii, no. 1, 1961, 58-59)

TEXT: The introduction of new materials at the Sverdlovsk Works for rubberized technical articles has increased the productivity of labor and enhanced the quality of the articles produced. Rubber type CKC-30APM-15 (SKS-30ARM-15) is of quality not inferior to the series-produced CKMC-30 (SKMS-30) but surpasses this in production process qualities. Oil-resistant compounds made from SKS-30ARM-15 in combination with CKH-26 (SKN-26) can be prepared 15 to 20 times faster in rubber mixers than on rolls. Soft CKH (SKN) also has many technological advantages over normal SKN. Both of the soft rubbers (SKN and SKS-30ARM-15) require reinforcement ✓

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New materials for the production ...

S/081/62/CCO/010/078/085  
B166/B144

of the vulcanizing group. The silicon rubber CKT (SKT), the F rubber CKZ (SKF), fluoroplast and combinations of them (the rubber-like material ZKC (FKS), which is a compound of SKT and tetrafluoroethylene) are used to manufacture articles operating in a wide range of temperatures (from -70° to 400°C). Prototypes of SKT (CKT-B (SKT-V)) enable the field of application of SKT to be widened. SKT and SKF are vulcanized in two stages. The introduction of renacit 4 has accelerated the mastication of HK (NK), the substitution of stearic acid with synthetic fatty acids (C<sub>17</sub>-C<sub>20</sub>) has made it possible to give up the use of edible forms of raw material. [Abstracter's note: Complete translation.]

Card 2/2



L 35042-65 ENT(m)/EPF(o)/ENP(j)/T Po-h/Pr-h RM/OS

ACCESSION NR: AT5004097

S/0000/64/0007/001/0077/0087

AUTHOR: Klitenik, G. S.; Patnor, S. B.

TITLE: Characteristic wear of rubber against metal gauze

SOURCE: Nauchno-tekhnicheskoye soveshchaniye po friktsionnomu iznosu rezin.

Moscow, Izd-vo Khimiya, 1964, 77-87

TOPIC TAGS: rubber, rubber research, rubber properties, mechanical working, metal gauze, wear resistance, friction

ABSTRACT: The purpose of this work was to develop better methods for testing rubber. In the use of rubber, two basic types of interactions are observed: cutting and slippage. The former takes place during the running of tires and rubber soles on a gravel road, while the second interaction occurs when belts are run on pulleys. Metal gauze is a material which subjects rubber to both types of wear. Gauze is durable over long periods of time and in addition it permits testing of swollen and lubricated rubber samples. The results of tests for wear against metal gauze are much more dependent on the composition of the rubber and the degree of vulcanization than the results of tests on sandpaper. A correlation is

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ACCESSION NR: AT5004097

made between wear against metal gauze and wear against a solid metal surface. An investigation was made of the effect of loading on the wear of rubber against metal gauze, where the specific wear in  $\text{mm}^3/\text{N} \cdot \text{m}$  is  $\alpha v^n$ , where  $\alpha$  is a constant which is numerically equal to wear when  $v = 1$ . Experimental data show that in sandpaper tests  $\alpha$  is close to 1, while for tests with metal gauze  $\alpha$  differs from unity. The quantity  $\alpha$  is a function of the intensity of intermolecular forces. The higher polarity of polymers and the introduction of active fillers increase the value of  $\alpha$  while an increase in the degree of swelling in rubber generally lowers  $\alpha$ . Rubber wear was studied in relationship to its physical and mechanical properties. The formula  $(\sigma_0)^{\frac{1}{n}} = A \frac{E^{\frac{1}{n}}}{E^{\frac{1}{n}} - K}$  relates rubber wear

to a reduction in its strength, hardness and elasticity where  $n$  is an empirical coefficient,  $A$  is the proportionality factor,  $u$  is the coefficient of hysteresis losses (where  $D$  is recoil elasticity in %),  $\sigma_0$  is tensile strength in  $\text{kg}/\text{cm}^2$ ;  $E$  is the compression modulus of the rubber in  $\text{kg}/\text{cm}^2$ ,  $K$  is the aging factor. In addition, this formula relates wear to fatigue and aging in rubber. The effects of the lattice constants for the gauze and the area of the specimen were also studied. The article concludes with an evaluation of the distribution of wear between abrasive and friction wear.

Cord 2/3

L 35042-65

ACCESSION NR: AT5004097

Orig. art. has: 7 figures, 9 formulas and 4 tables.

ASSOCIATION: none

SUBMITTED: 05Aug64

ENCL: 00

SUB CODE: MT

NO REF SOV: 017

OTHER: 003

Cord 3/3

L 3564-66 ENT(d)/ENT(m)/END(\*)/ENF(e)/ENP(j)/T-EM/DJ/GS/RM  
 ACCESSION NR: AT5022673 UR/0000/65/000/000/0156/0159

AUTHORS: Ratner, S. B.; Klitenik, G. B.; Lur'ye, Ye. G.

TITLE: Wear of polymers as a process of fatigue damage

SOURCE: AN SSSR. Nauchnyy sovet po treniyu i smaskam. Teoriya treniya i iznosa (Theory of friction and wear). Moscow, Izd-vo Nauka, 1963, 156-159

TOPIC TAGS: polymer, polymer wear, polymer fatigue, rubber wear, polymer friction

ABSTRACT: The effects of contact pressure and friction on the <sup>14</sup>fatigue wear of polymers (as opposed to abrasive wear) were investigated. Based on the fatigue theory, the wear I for the case of elastic contacts can be expressed as

$$I = c/c_0 \cdot R^{0.5-1.5} \cdot \mu^{1.5-2.5}$$

(I. V. Kragel'skiy and Ye. F. Nepomnyashchiy. Ob ustalostnom mekhanizme iznosa pri uprugom kontakte. Izv. AN SSSR, Mekhanika i mashinostroyeniye, 1963, No. 5) where  $\mu$  and  $c$  are characteristic of the surface roughness,  $t$  = constant characterizing the fatigue resistance of the rubber according to

$$n = \left(\frac{c}{c_0}\right)^2 = \left(\frac{R}{R_0}\right)^2$$

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L 3564-66

ACCESSION NR: AT5022673

(M. M. Resnikovskiy. Kauchuk i resina. 1950, No. 9). Physically  $t$  has the meaning  
 $t \propto 3 \lg n_{1/2}$   
 (where  $n_{1/2}$  = number of cycles required to give half the polymer strength). The  
 combined equations

$$I = I_p; \\ a = 1 + \beta = 1 + 3 \lg n_{1/2}$$

were experimentally investigated, and it was found that  $\alpha > 1$  while  $\alpha = 1$  for  
 abrasive wear. For 9 different polymers  $\alpha$  was found to vary linearly from 0.9-  
 4.0 as  $t$  increased from 0-60. It was also found that small changes in  $f$  lead to  
 large changes in wear (see first equation above) with wear decreasing more with  
 $f$  for larger values of  $\alpha$  (S. B. Ratner. Dokl. AN SSSR, 1963, 155, 848). Intro-  
 duction of a lubricant results in increased wear, with  $I/I_{\text{lub}}$  almost linear with  
 $\alpha_{\text{lub}} - \alpha$ . Orig. art. has: 2 tables, 1 figure, and 6 formulas.

ASSOCIATION: Nauchnyy sovet po treniyu i smazkam, AN SSSR (Scientific Committee  
 on Friction and Lubrication, AN SSSR)

SUBMITTED: 18 May 65

ENCL: 00

SUB CODE: MT

NO REF SOV: 005

OTHER: 000

Card 2/2 *mlr*

KLITIN, A.N.

Ecologico-geographical characteristics of birds in the forest-steppe zone of Chernovtsy Province. Nauk. zap. UzhGU 40:67-74 '59.  
(MIRA 14:4)

1. Chernovitskiy gosudarstvennyy universitet.  
(Bukovina -Birds)

AUTHOR: Klitin, K.A.

11-7-3/23

TITLE: "The Tectonic Structure of the Central Section of the Tuva Inter-Mountain Depression" (Tektonicheskoye stroeniye tsentral'noy chasti Tuviskoy meshgornoy vpadiny)

PERIODICAL: "Izvestiya Akademii Nauk SSSR", Seriya Geologicheskaya, 1957, 22 No. 7, pp. 34-48, (USSR)

ABSTRACT: The central section of the Tuva Inter-Mountain depression is of considerable geologic interest, for it represents a junction point for the solving of problems pertaining to stratigraphy and tectonics of the entire depression. In contrast to other sections, the central section was subjected to an upthrust during the Middle and Upper Paleozoic epoch. In the course of this process the foundation of the depression was broken up into separate block mountains, displacement of which was accompanied by folding effects, resulting in angular folds. Detailed geologic mapping of this area was carried out by the author during 1953-1954 with the aid of aerial photography. The results confirmed the correctness of former assumptions regarding the formation of this depression. Paleozoic and Mesozoic deposits, rock formations of the Cambrian period and metamorphous Ordovician layers contributed to the

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11-7-3/23

"The Tectonic Structure of the Central Section of the Tuva Inter-Mountain Depression"

formation of the Tuva depression. The upper strata was formed by deposits of the Silurian, Devonian, Carboniferous and Jurassic periods. The inner structure of the depression is not uniform. In its central section, large horst-like protrusions of the base rock are found, interrupted by sections of syncline depressions. The profiles of the Central Tuva plateau of the Middle and Upper Paleozoic periods are of lesser magnitude than those of the depression, and contain numerous inconformities and gaps in conjunction with rather complex structures. All structures of the depression are directly affected by cleavages of the foundation rocks, which have, on their part, influenced the forming of the Middle and Upper Paleozoic texture of the depression.

The article contains 8 figures. The bibliography lists 8 references, all Slavic (Russian)

ASSOCIATION:

SUBMITTED:

AVAILABLE:

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Geologic Institute of the Academy of Sciences USSR.

February 1, 1957

Library of Congress



KLITIN, K. A., Cand Geol-Mineral Sci -- (diss) "Morphology and  
history of the formation of middle Upper Paleogene <sup>structures</sup> ~~textures~~ ~~in~~  
Central Tuva." Mos, 1958. 20 pp. (Acad Sci USSR, Geol Inst),  
130 copies. (KL, 9-58, 114)

- 31 -

AUTHOR:

Klitin, K. A.

20-2-45/60

TITLE:

On the Peculiarities of the Development of Some Hercynian Structures of the Tuva (Ob osobennostyakh razvitiya nekotorykh gertsinskikh struktur Tuvy)

PERIODICAL:

Doklady AN SSSR, 1958, Vol. 118, Nr 2, pp. 361 - 364 (USSR)

ABSTRACT:

With regard to tectonics the intermountain depression of Tuva is a large Hercynian structure built upon a Caledonian folded basis. The block tectonics ("glybovaya tektonika") plays an important part in the structure of the depression. Several positive large structures occur in the interior of the depression; they are horst-anticlinal elevations which divide the depression into a number of synclinal deflections. The Central-Tuva-elevation lies in the central part of the depression. It consists of a complicated mosaic of horsts and grabens. The Boyangol'skaya horst-anticline which forms part of the elevation, is 50 km long and 20 - 25 km wide. The structure of this structure in a transverse direction is crassly asymmetrical. In the south and east its Cambrian core is subsequently coated by Silurian, Devonian, Carboniferous, in places also by Jurassic formations, whereas in the north Carboniferous and Jurassic rocks are directly deposited on the Cambrian rocks. On the surface of the

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On the Peculiarities of the Development of Some Hercynian Structures of the Tuva  
APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000723210002-4

Boyangol'skaya horst-anticline in the Upper Devonian finely clastic and carbonate gray-colored rocks occur which wedge out in the direction of the axial part of the West-Tannuola synclinal deflection. This is explained by a time of submersion of the horst below the level of the water. In this period the West-Tannuola deflection was only from its southeastern edge intensively filled up with material of sand and gravel. The modification of thickness and facies described in the paper indicates an uninterrupted, though irregular elevation of the Boyangol'skiy horst in the Devonian. This was in connection with its motion along the long-existing fractures. Then the horst also was a local source of denudation and furnished coarse-clastic material as well in the Oyuk'siy grabens as in the West-Tannuola deflection. The above-mentioned asymmetry of the Boyangol'skiy horst is in connection with a different speed of elevation of its individual portions. The northern edge was incomparatively more rapidly elevated than the southern edge. The former was therefore also much more rapidly washed out. At the southern edge, however, the not thick, mainly red-colored formations accumulated which show many local interruptions and angular discordances. The asymmetry is also characteristic of many other block structures of the Tuva. The most intensive motions accompanied by volcanic activity took place in the Lower-Devonian-Eifel.

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20-2-45/68

**.On the Peculiarities of the Development of Some Hercynian Structures of the Tuva**

In this period the Boyangol'skiy horst above the bottom of the West-Tannuola deflection rose by at least 7000 - 8000 m. By the author's opinion Leont'yev (reference 1) is not right with his conception that the Hercynian block motions have little importance. These motions played an eminent part in the Devonian in the Tuva and in a weakened form lasted in the Upper Paleozoic and in the Mesozoic. The endeavors of several geologists to bring the angular discordances within the Middle-Upper Paleozoic deposits in connection with folding phases cannot be agreed to either. The example described shows an uninterrupted, although irregular development. The interruptions and discordances have a local importance and reflect one or the other peculiarity of this development. There are 1 figure, and 1 Slavic reference.

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20-2-35/48

On the Peculiarities of the Development of Some Hercynian Structures of the Tura

ASSOCIATION: Geological Institute AN USSR  
(Geologicheskii institut Akademii nauk SSSR)

PRESENTED: April 9, 1957, by N. S. Shatskiy, Academician

SUBMITTED: April 8, 1957

AVAILABLE: Library of Congress

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KLITIN, Konstantin Aleksandrovich; SHATSKIY, N.S., akademik, glavnyy  
red.; ZAYTSOV, N.S., otv.red.; ROMANOVA, L.A., red.isd-va;  
BERESLAVSKAYA, L.Sh., tekhn.red.

[Tectonics of the central Tuva Depression] Tektonika tsentral'noi  
chasti Tuvinskogo progiba. Moskva, Gos.nauchn. -tekhn.isd-vo  
lit-ry po gornomu delu, 1960. 123 p. (Akademiia nauk SSSR.  
Geologicheskii institut. Trudy, no.36) (MIRA 13:3)  
(Tuva Depression--Geology, Structural)

KLITIN, K.A.

Tectonics of Spitsbergen. Izv. AN SSSR. Ser. geol. 25 no.10:62-69  
O '60. (MIRA 13:10)

1. Geologicheskii institut AN SSSR, Moskva.  
(Spitsbergen--Geology, Structural)

BERZIN, N.A.; KLITIN, K.A.

Structure of the main fault zone in the Eastern Sayans in the  
upper Uda. Geol. i geofiz. no. 7:16-25 '61. (MIRA 14:9)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR,  
Novosibirsk.

(Sayan Mountains--Faults (Geology))

KLITIN, K.A.; PALEY, I.P.; POSTEL'NIKOV, Ye.S.

Features of the morphology of structures of the eastern margin of  
the Yenisey Ridge. Dokl. AN SSSR 152 no.5:1204-1207 0 '63.  
(MIRA 16:12)

1. Geologicheskiy institut AN SSSR. Predstavleno akademikom  
A.L.Yanshinym.



KLITIN, K.A.; PALEY, I.P.

Some characteristics of the structure of the Zhuino fault zone  
(Patom Plateau). Dokl. AN SSSR 162 no.6:1360-1363 Ja '65. (MIRA 18:7)

1. Geologicheskii institut AN SSSR. Submitted March 13, 1965.

KLITIN, K.A.

Baikal folding and teallitelike conglomerates in the cross sections of  
caldonides in Europe and Greenland. Dokl. AN SSSR 163 no.3:702-705 J1  
'65. (MIRA 18:7)

1. Geologicheskii institut AN SSSR. Submitted April 1, 1965.

L 03766-67 EWI(m)/ENP(t)/ETI/ENP(k) IJP(c) JD/WM/HM/JG  
ACC NR: AR6029496 SOURCE CODE: UR/0137/86/000/006/D036/D038

AUTHOR: Donskov, A. V.; Kostygov, A. S.; Klitin, N. P.; Lokshin, V. A.,  
Stepanov, A. V.

TITLE: Production of longitudinally ribbed pipe from molten metal and the investigation of thermal and manufacturing properties of the pipe

SOURCE: Ref. zh. Metallurgiya, Abs. 6D251

REF SOURCE: Uch. zap. Leningr. gos. ped. in-ta im. A. I. Gertsena, no. 265, 1965, 12-32

TOPIC TAGS: pipe, ribbed pipe, convective heat exchange

ABSTRACT: Longitudinally-ribbed pipes produced from molten metal by the A. V. Stepanov method possess a combination of properties which in a number of cases, makes them suitable for use in the production of heat-exchange equipment. The convective heat exchange in clusters of longitudinal pipe has a pattern identical to internal heat exchange in channels during longitudinal joining. The production technology of longitudinally ribbed pipes is discussed in detail. Orig. art. has: 14 figures. L. Kochenova. [Translation of abstract] [AM]

SUB CODE: 13/  
Card 1/1

UDC: 621.771.35

NOV/96-59-5-8/19

**AUTHORS:** Salikov, A.P., Candidate of Technical Sciences;  
Glazov, S.V., Engineer and Klitin, N.P., Engineer

**TITLE:** A New Type of Non-Tubular Regenerator for Gas-Turbine  
Installations (Novyy tip netruchatogo regeneratora  
gazoturbinnikh ustanovok)

**PERIODICAL:** Teploenergetika, 1959, Nr 5, pp 46-50 (USSR)

**ABSTRACT:** Although regenerators are of the utmost importance in gas-turbine installations, a good design has not yet been evolved. Tubular regenerators are mostly of large size and weight; table 1 gives the characteristics of those used with a number of Soviet and foreign gas turbines. Rotating regenerators are small and light but are subject to considerable leakages of hot air into the gas space. Because of the need to develop small and light regenerators the All-Union Thermo-Technical Institute proposed a new ribbed-plate type of heating surface, which was used in the construction of regenerators. A sketch of the ribbed-plate construction is given in Fig 1 and it is described in the text. Bending of the ribs and welding them to the plates present no special difficulties.

Card 1/3 A photograph of a ribbed-plate element manufactured from